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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,097	02/26/2002	Choe Min-Cheol	2693-114	2669

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EXAMINER

HEWITT, JAMES M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 05/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,097

Applicant(s)

MIN-CHEOL, CHOE

Examiner

James M Hewitt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/22/04 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hama et al (US 5,692,784) in view of Knohl (US 2,712,262), and further in view of Guest (US 4,958,858).

With reference to Figure 6, Hama et al discloses (as prior art) a cartridge for fixing a collector (110) comprising: a main body (106); a cap (108) fixed (by caulking) to the main body (106); and a metallic hook (112) inserted and fixed (in groove 106a)

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between the main body (106) and the cap (108). In Figure 6, the hook is positioned between the rightmost surface of cap (108) and an inner surface of main body (106). Hama et al fails to teach that the metallic hook includes inclined elastic flaps arranged around the hook body, and a plurality of horizontal elastic flaps which are formed between the inclined flaps. In Figures 4-8, Knohl teaches a retainer (10a) for centering and preventing tilting of a tube or pipe. The retainer is formed of sheet metal having a plurality of inclined elastic flaps (14a) and three horizontal elastic flaps (16a) formed between the inclined flaps around the retainer body. Refer to Attachment A (provided in the office action mailed 1/9/03), which shows the plurality of horizontal flaps between the inclined flaps. Given that applicant has used the term "elastic" to describe his metallic flaps, and based on the following dictionary definition of elastic, Knohl's sheet metal flaps are considered to be elastic flaps in that sheet metal is flexible and can easily resume its original shape after being bent (stretched or deformed). e-las-tic (i-làs'tik)

adjective 1. a. Easily resuming original shape after being stretched or expanded; flexible. See synonyms at flexible.

b. Springy; rebounding.¹ It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the hook (112) of Hama et al with the retainer (12a) as taught by Knohl in order to center and prevent tilting of a tube or conduit inserted and fixed to tube joint (100) so that fluid passing through the conduit and joint is delivered more efficiently and effectively.

¹ *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

It should be noted that metal is not normally described as "elastic", but given the fact that applicant describes his metallic flaps as elastic, and based on the above definition of the term, the examiner has considered Knohl's flaps to be elastic. Applicant has not stated that the metal used for his hook is a metal that is uniquely elastic, and the examiner considers applicant to be using the term in more of a broad or general sense, taking a meaning more close to the term "flexible", and not in the sense of how a rubber band, for example, is considered elastic.

Hama et al also fails to teach that his cap (108) is adhered to his main body (106) by high frequency waves. Hama et al secures the cap to his main body by caulking. Guest teaches a tube coupling, similar to Hama et al and the claimed invention. Guest teaches adhering insert collar (14) to body (11) by ultrasonic welding (high frequency waves). In view of Guest's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to secure Hama's cap to his main body by ultrasonic welding in order to create a more durable, long-lasting connection.

With respect to claim 2, wherein said plurality of horizontal elastic flaps is three (see Attachment A).

With respect to claim 3, wherein said plurality of horizontal elastic flaps is four (see Attachment A).

Response to Arguments

Applicant's arguments filed 1/22/04 have been fully considered but they are not persuasive.

Applicant argues that Hama's hook (112) is not between cap (108) and main body (106). The Examiner disagrees. From Figure 8, the hook (112) is disposed in groove (106a) of main body (106). From Figure 6, the hook (112) is shown to be disposed axially (left to right direction) between a rightmost surface or edge of cap (108) and a given inner surface and right portion of main body (106). The cap is on one side of the hook, the left side, the main body is on the other side of the hook, the right side. And thus, the hook is between the cap and the main body.

Applicant asserts that the main body (106) is not adhered or fixed to the joint body (102), and states that the main body (106) is designed to come apart from the joint body (102) in order to release the tube (130), as described in column 1, lines 51-56. This assertion is incorrect. From column 1, lines 18-20, main body (106) is said to be fixed to an interior of joint body (102) by caulking. From column 1, lines 51-56, "When the release cylinder 110 is pushed into the guide cylinder section 106, the inner edge of the ring claw 112 is pushed toward the stopper by an inner end of the release cylinder 110, so that the inner edge of the ring claw 112 releases the tube 130. By releasing the tube 130, the tube 130 can be pulled out from the tubing joint 100." Nowhere in these lines or in any other part of the description of the device depicted in Figures 6-8, does Hama disclose or suggest that the guide cylinder section 106 is designed to come apart from the joint body 102 in order to release the tube. Rather, movement of the release

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cylinder to disengage the ring claw from the tube permits release or withdrawal of the tube. The device would not function properly if the cylinder section 106 were not fixed. Thus, the Examiner maintains that in view of Guest's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to secure Hama's cap to his main body by ultrasonic welding rather than by caulking in order to create a more durable, long-lasting connection.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

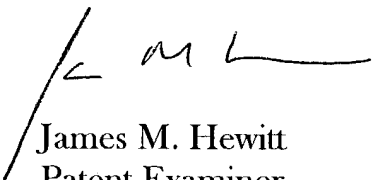
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Stodola can be reached on 703-308-2686. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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